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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,461	01/27/2004	Akio Saigusa	1232-5264	3181
27123 7590 07/17/2007 MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER KHOKHAR, ASIF I	
			ART UNIT 2609	PAPER NUMBER
			MAIL DATE 07/17/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/766,461

Applicant(s)

SAIGUSA ET AL.

Examiner

Asif Khokhar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/27/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 9-11, 17, 22-27 is/are rejected.
- 7) ☒ Claim(s) 3-8, 12-16, 18-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) 17, 22-27 are rejected under 35 U. S. C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim(s) 17, 22-27 define a recording medium that stores the procedure. The procedure is considered as a program as explained in specification. However, the claims does not define a computer readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex). Claim (s) 22-27 should be claim as, a

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computer readable recording medium that stores the procedure of smear correction according to claim (s) 11-16, wherein said procedure executed by a computer.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim (s) 1-2, 9-11,17,22-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Baer 6798450.

With reference to claim 1, Baer '450 discloses a solid state image pickup device (a digital camera, column 1, line 45), which comprises: solid state image pickup means for optically reading an image and converting the image into an electrical image signal (CCD, column 1 line 24,); memory means for storing a smear reference amount of the solid state image pickup means (a smear memory, line 64, column 6, Fig 3); and calculation means for calculating a physical amount proportional to a received light amount of the solid state image pickup means based on an output of the electrical image signal from the solid state image pickup means (the digital image signal, column 6, line 6; the digital image signal is based on received light amount and it is then converted to electrical signal according to received light. It is a calculation), wherein the electrical image signal is corrected based on the smear reference amount stored in the memory means and an output of the calculation means (The subtraction unit 308 of the smear cancellation

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circuit removes the smear components of the digital image signals by subtracting the digital image signals by the digital smear signals, line 7, column 7, Fig 3; digital smear signal is considered as smear reference amount).

With reference to claim 2, Baer '450 discloses that the smear reference amount is acquired by calculating based on a smear amount and the physical amount proportional to the received light amount when a light source is turned on (For each captured electronic image, the image-acquiring unit 108 subsequently acquires charges using an exposure period of zero. Since the exposure period is zero, these acquired charges are exclusively due to the accumulation of charges after the exposure period, which are equivalent to the smear charges included in the image charges for that captured electronic image. These subsequent charges, which are sometimes also referred herein as "smear charges", are then used to cancel the smear components of the image signals, line 42, column 6; The subsequent charges "smear charges", are smear reference amount which are based on smear amount and amount of light received; When the exposure begins, light source considered to be on.)

With reference to claim 9, Baer '450 discloses that the solid state image pickup means includes a CCD linear sensor (There are number of different types of CCD sensors, column 1, line 24; inherently, CCD linear sensor is one of different types of CCD sensors.)

With reference to claim 10, Baer '450 discloses a method of correcting a smear of a solid state image pickup device (a digital camera, column 1, line 45), comprising the steps of: storing a

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smear reference amount of the solid state image pickup means in memory means (a smear memory, line 64, column 6, Fig 3); reading an image signal by a solid state image pickup element (CCD, line 24, column 1); calculating a physical amount proportional to an amount of received light of the solid state image pickup means based on an output of the electrical image signal from the solid state image pickup means (the digital image signal, column 6, line 6; the digital image signal is based on received light amount and it is then converted to electrical signal according to received light. It is a calculation); and correcting the electrical image signal read based on the smear reference amount stored in the memory means and an output based on the calculated result (The subtraction unit 308 of the smear cancellation circuit removes the smear components of the digital image signals by subtracting the digital image signals by the digital smear signals, line 7, column 7, Fig 3; digital smear signal is considered as smear reference amount).

With reference to claim 11, Baer '450 discloses that the storing step comprises a step of calculating a smear reference amount based on a smear amount and the physical amount proportional to the received light amount when a light source is turned on (For each captured electronic image, the image-acquiring unit 108 subsequently acquires charges using an exposure period of zero. Since the exposure period is zero, these acquired charges are exclusively due to the accumulation of charges after the exposure period, which are equivalent to the smear charges included in the image charges for that captured electronic image. These subsequent charges, which are sometimes also referred herein as "smear charges", are then used to cancel the smear components of the image signals, line 42, column 6; The subsequent charges "smear charges",

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are smear reference amount which are based on smear amount and amount of light received;

When the exposure begins, light source considered to be on.).

With reference to claim 17, Baer '450 discloses A recording medium that stores the procedure of smear correction according to claim 10 (Microcontroller 122, column 7, line 23, Fig 1; a microcontroller inherently contain a memory section such as RAM or in which such a procedure of smear correction can be store.)

With reference to claim 22-27, Baer '450 discloses a recording medium that stores the procedure of smear correction (Microcontroller 122, column 7, line 23, Fig 1; a microcontroller inherently contain a memory section such as RAM or in which such a procedure of smear correction can be store.)

***Allowable Subject Matter***

Claim (s) 3-8,12-16,18-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asif Khokhar whose telephone number is (571) 270-3221. The examiner can normally be reached on Monday- Friday 7:30am-5pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Ho can be reached on 571 272 7365. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Asif Khokhar

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TUAN HO  
PRIMARY EXAMINER